



Launch Mission Execution Forecast

Mission: Falcon 9 Transporter-1

Issued: 21 Jan 2021 / 0830L (1330Z)

Valid: 22 Jan 2021 / 0924-1022L (1424-1522Z)



Forecast Discussion: The strong high pressure area has begun to drift south and will be near the Bahamas tonight. This will allow a frontal system to move eastward, approaching the Florida Panhandle overnight. On Friday, the boundary will begin to erode over North Florida, but it will bring mid-level cloudiness across the Spaceport. The primary launch weather concern for Friday morning is the Thick Cloud Layer Rule associated with these frontal clouds.

On Saturday, the east-west oriented frontal system will push closer to the Space Coast, bringing isolated showers to the Spaceport while enhancing the mid-level cloudiness. The primary weather concerns Saturday morning are the Cumulus Cloud Rule associated with the showers and the Thick Cloud Layer Rule from the frontal cloudiness.

Launch Day	Probability of Violating Weather Constraints							
	20%	Primary Concerns: Thick Cloud Layer Rule						
	Weather Conditions					Additional Risk Criteria		
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	63°F / 75%	Altocumulus	Scattered	10,000	12,000	Booster Recovery Weather:	Low
	Liftoff Winds (200'):	250° 10-15 mph	Cirrostratus	Scattered	25,000	27,000	Solar Activity:	Low
24-Hour Delay	Probability of Violating Weather Constraints							
	40%	Primary Concerns: Cumulus Cloud Rule, Thick Cloud Layer Rule						
	Weather Conditions					Additional Risk Criteria		
	Weather/Visibility:	Isold Showers / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	68°F / 85%	Cumulus	Scattered	3,500	7,000	Booster Recovery Weather:	Low
	Liftoff Winds (200'):	300° 12-17 mph	Altocumulus	Scattered	10,000	13,000	Solar Activity:	Low
Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.								
Next Forecast Will Be Issued		As Required						